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BIRCH STEWART KOLASCH & BIRCH			EXAMINER	
PO BOX 747			MORRISON, THOMAS A	
FALLS CHURCH, VA 22040-0747			ART UNIT	PAPER NUMBER
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NOTIFICATION DATE		DELIVERY MODE		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/561,543	<b>Applicant(s)</b> KYUKEN ET AL.
	<b>Examiner</b> THOMAS A. MORRISON	<b>Art Unit</b> 3653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(o).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.  
 2a) This action is FINAL.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-14 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_ is/are allowed.  
 6) Claim(s) 1-14 is/are rejected.  
 7) Claim(s) \_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                 | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement (PTO/SB/08e)<br>Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____  |

#### **DETAILED ACTION**

1. Applicant's preliminary amendment of 12/19/2005 has been entered.

##### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as

being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: (1) the structure or structural relationship between the claimed elements in claim 1 that allows the working portion of the image processing mechanism to operate when in the case that multi-feeding has occurred in which when a first paper is transported by the paper transport mechanism another paper is also transported, and the other paper is not positioned between the first paper and a working portion of the image processing mechanism. Is there some sort of controller that allows this function to occur? What structure(s) allows this function to occur?

Claim 2 and its dependent claims are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary

structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: (1) the structure or structural relationship between the claimed elements in claim 2 that allows the reading operation of the image of the first original by the original reading mechanism to be continued when, in the case that multi-feeding has occurred in which when a first original is transported by the paper transport mechanism another original is also transported, and the other original is not positioned between the first original and a reading portion of the original reading mechanism. Is there some sort of controller that allows this function to occur? What structure(s) allows this function to occur?

Claim 4 and its dependent claims are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: (1) the structure or structural relationship between the claimed elements in claim 4 that allows the reading operation of the image of the first original by the original reading mechanism to be stopped when, in the case that multi-feeding has occurred in which when a first original is transported by the paper transport mechanism another original is also transported, and the other original is positioned between the first original and a reading portion of the original reading mechanism. Is there some sort of controller that allows this function to occur? What structure(s) allows this function to occur?

Claim 5 and its dependent claims are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: (1) the structure or structural relationship between the claimed elements in claim 5 that allows the reading operation of the image of the other original by the original reading mechanism to be continued when, in the case that multi-feeding has occurred in which when a first original is transported by the paper transport mechanism another original is also transported, and the other original is positioned between the first original and a reading portion of the original reading mechanism. Is there some sort of controller that allows this function to occur? What structure(s) allows this function to occur?

Claims 3 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: (1) the specific structure or structural relationship between the claimed elements in claims 3 and 6 that allows originals to be supplied beginning with the top page or beginning with the bottom page. No specific structure is recited in claim 3 or claim 6 for performing these functions. As such, it is not understood what structure is intended to be claimed based on the language in claim 3 or the language in claim 6. Further clarification of these structures is needed.

Claims 7 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: (1) the specific structure or structural relationship between the claimed elements in claims 7 and 8 that allow the leading edge of the other original to be detected. How does a reading mechanism detect a leading edge? Is there a detector or sensor included in the reading mechanism?

Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: (1) the specific structure or structural relationship between the notifier and the original reading mechanism that allows the notifier to make a notification, as claimed. Is the notifier connected to the original reading mechanism?

Regarding claims 11 and 12, it is unclear how the claimed electronic equipment is combined as claimed. How do you combine the listed electronic equipment?

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 11, 13 and 14, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,554,275 (Tranquilla) (hereinafter "Tranquilla").

Regarding claim 1, Figs. 3-4 show an image processing apparatus (Fig. 3) comprising:

a paper transport mechanism (including 14) that transports paper (78 and/or 80), and

an image processing mechanism (col. 5, lines 50-60) that performs image reading processing of the paper transported by the paper transport mechanism (including 14),

wherein when, in the case that multi-feeding has occurred in which when a first paper (78) is transported by the paper transport mechanism (including 14) another paper (80) is also transported, and the other paper (80) is not positioned between the first paper (78) and a working portion of the image processing mechanism (col. 5, lines

50-56), the working portion of the image processing mechanism (col. 5, lines 50-60) is allowed to operate.

Regarding claim 11, col. 5, lines 50-60 disclose an electronic equipment, wherein a scanner apparatus, copy apparatus, or facsimile apparatus, or a multifunction machine in which any two or more of these apparatuses are combined, is equipped with the image processing apparatus according to claim 1. See the rejection of claim 1 above for the elements of claim 1.

Regarding claim 13, Figs. 3-4 disclose an original reading method comprising:  
a step of transporting an original (78) with an original transport mechanism (including 14),

a step of reading an image of the transported original with an original reading mechanism (col. 5, lines 50-60),

a step of detecting multi-feeding of another original (80) when transporting a first original (78) with the original transport mechanism (including 14)(see also Fig. 2 for multi-feeding detection), and

a step of continuing the reading operation of the image of the first original (78) by the original reading mechanism (col. 5, lines 50-60) in the case that the other original (80) is not positioned between the first original (78) and the reading portion of the original reading mechanism (col. 5, lines 50-60), even when the multi-feeding has been detected. See, e.g., Figs. 2-4.

Regarding claim 14, Figs. 3-4 disclose an original reading method comprising:

a step of transporting an original (80) with an original transport mechanism (including 14),

a step of reading an image of the transported original (80) with an original reading mechanism (col. 5, lines 50-60),

a step of detecting multi-feeding of another original (78) when transporting a first original (80) with the original transport mechanism (including 14), and

a step of continuing the reading operation of the image of the other original (78) by the original reading mechanism (col. 5, lines 50-60) in the case that the multi-feeding has been detected and the other original (78) is positioned between the first original (80) and the reading portion of the original reading mechanism (col. 5, lines 50-60).

***Claim Rejections - 35 USC § 103***

4. Claims 2-8 and 12, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Tranquilla in view of U.S. Patent Publication No. 2003/0090050 (Sueoka) (hereinafter "Sueoka").

Regarding independent claim 2, Figs. 3-4 of Tranquilla show an original reading apparatus comprising:

an original transport mechanism (including 14) that, along with having a movable member (14) that can make contact with an original (78) placed on an original placement stage (Fig. 3), transports the original (78) by delivering it from the original

placement stage (Fig. 3) by transmitting the movement of the movable member (14) to the original (78) with frictional force between the movable member (14) and the original (78), which is in contact with the movable member (14), and

an original reading mechanism (including 72, 70 and col. 5, lines 50-60) that captures an image of the original (78) transported by the original transport mechanism (including 14),

wherein when, in the case that multi-feeding has occurred in which when a first original (78) is transported by the paper transport mechanism (including 14) another original (80) is also transported, and the other original (80) is not positioned between the first original (78) and a reading portion of the original reading mechanism (col. 5, lines 50-60), the reading operation of the image of the first original (78) by the original reading mechanism (col. 5, lines 50-60) is continued. Tranquilla discloses most of the limitations of claim 2. In fact, Tranquilla discloses an original reading mechanism (col. 5, lines 50-60), but does not explicitly disclose that such original reading mechanism has a light source that illuminates the original, an optical sensor, and an optical system that guides light reflected from the original illuminated by the light source to the optical sensor, as claimed.

Regarding independent claim 4, Figs. 3-4 of Tranquilla show an original reading apparatus comprising:

an original transport mechanism (including 14) that, along with having a movable member (14) that can make contact with an original (78) placed on an original

placement stage (Fig. 3), transports the original (78) by delivering it from the original placement stage (Fig. 3) by transmitting the movement of the movable member (14) to the original (78) with frictional force between the movable member (14) and the original (78), which is in contact with the movable member (14), and

an original reading mechanism (including 72, 70 and col. 5, lines 50-60) that captures an image of the original (78) transported by the original transport mechanism (including 14),

wherein when, in the case that multi-feeding has occurred in which when a first original is transported by the paper transport mechanism another original is also transported, and the other original is positioned between the first original and a reading portion of the original reading mechanism, the reading operation of the image of the first original by the original reading mechanism is stopped. Regarding the recitation "wherein when, in the case that multi-feeding has occurred in which when a first original is transported by the paper transport mechanism another original is also transported, and the other original is positioned between the first original and a reading portion of the original reading mechanism, the reading operation of the image of the first original by the original reading mechanism is stopped", this recitation includes "conditional limitations" that need **not** ever occur. (emphasis added). For example, if no multi-feeding occurs, the conditional limitations of this recitation are **not** met. Alternatively, if the other original is **not** positioned between the first original and a reading portion of the original reading mechanism, the conditional limitations of this recitation are also **not** met. As such, the reading operation of the image of the first

original by the original reading mechanism is never required to be stopped, since the conditional limitations need **not** ever occur. Since the above-noted recitation includes "conditional limitations" that need **not** ever occur, this recitation does not distinguish claim 4 from the prior art apparatus of Tranquilla. Tranquilla discloses most of the limitations of claim 4. In fact, as noted above, Tranquilla discloses an original reading mechanism (col. 5, lines 50-60), but does not explicitly disclose that such original reading mechanism has a light source that illuminates the original, an optical sensor, and an optical system that guides light reflected from the original illuminated by the light source to the optical sensor, as claimed.

Regarding claim 5, Figs. 3-4 of Tranquilla show an original reading apparatus comprising:

an original transport mechanism (including 14) that, along with having a movable member (14) that can make contact with an original (80) placed on an original placement stage (Fig. 3), transports the original (80) by delivering it from the original placement stage (Fig. 3) by transmitting the movement of the movable member (14) to the original (80) with frictional force between the movable member (14) and the original (80), which is in contact with the movable member (14), and

an original reading mechanism (including 72, 70 and col. 5, lines 50-60) that captures an image of the original (80) transported by the original transport mechanism (including 14),

wherein when, in the case that multi-feeding has occurred in which when a first original (80) is transported by the paper transport mechanism (including 14) another original (78) is also transported, and the other original (78) is positioned between the first original (80) and a reading portion of the original reading mechanism (col. 5, lines 50-60), the reading operation of the image of the other original (78) by the original reading mechanism (col. 5, lines 50-60) is continued. Tranquilla discloses most of the limitations of claim 5. In fact, as noted above, Tranquilla discloses an original reading mechanism (including 72, 70 and col. 5, lines 50-60), but does not explicitly disclose that such original reading mechanism has a light source that illuminates the original, an optical sensor, and an optical system that guides light reflected from the original illuminated by the light source to the optical sensor, as claimed.

With regard to independent claims 2, 4 and 5, Sueoka discloses that it is well known in the art to provide an original reading apparatus with an original reading mechanism (including 121 and 131-133) having a light source (132) that illuminates an original, an optical sensor (121), and an optical system (including 131 and 133) that guides light reflected from the original illuminated by the light source (132) to the optical sensor (121), and that captures an image of the original transported by the original transport mechanism (including 131 and 133), for the purpose of reading the image surface of a sheet-shaped document. See, e.g., numbered paragraph [0038] of Suioka. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the original reading mechanism of Tranquilla with a light source, an optical sensor and an optical system for the purpose of reading the image surface of

a sheet-shaped document, as taught by Sueoka. Thus, all of the limitations of claims 2, 4 and 5 are met by the cited combination of references.

Regarding claim 3, Figs. 3-4 of Tranquilla show that the original transport mechanism (including 14) is a structure in which a plurality of pages of originals that have been placed on the original placement stage (Fig. 3) with the original face upward are supplied and transported page by page beginning with the top page, **or** a structure in which a plurality of pages of originals that have been placed on the original placement stage (Fig. 3) with the original face downward are supplied and transported page by page beginning with the bottom page.

Regarding claim 6, Figs. 3-4 of Tranquilla show that the original transport mechanism (including 14) is a structure in which a plurality of pages of originals that have been placed on the original placement stage (Fig. 3) with the original face upward are supplied and transported page by page beginning with the bottom page, **or** a structure in which a plurality of pages of originals that have been placed on the original placement stage (Fig. 3) with the original face downward are supplied and transported page by page beginning with the top page.

Regarding claim 7, as best understood, Figs. 3-4 of Tranquilla show that the original reading mechanism (including 72, 70 and col. 5, lines 50-60) detects the leading edge of the other original (78 or 80) when reading the first original (80 or 78, respectively).

Regarding claim 8, Figs. 3-4 of Tranquilla show that **when** the original reading mechanism has detected the leading edge of the other original during reading of the first original, the original reading mechanism stops the reading operation of the first original and deletes the read image. Regarding the recitation “wherein **when the original reading mechanism has detected the leading edge of the other original during reading of the first original**, the original reading mechanism stops the reading operation of the first original and deletes the read image”, this recitation includes “conditional limitations” that need **not** ever occur. (emphasis added). For example, if the original reading mechanism does not detect the leading edge of the other original during reading of the first original, there is no requirement for the original reading mechanism to stop the reading operation. Since the above-noted recitation includes “conditional limitations” that need **not** ever occur, this recitation does not distinguish claim 8 from the prior art apparatus of Tranquilla in view of Sueoka.

Regarding claim 12, col. 5, lines 50-60 disclose an electronic equipment, wherein a scanner apparatus, copy apparatus, or facsimile apparatus, or a multifunction machine in which any two or more of these apparatuses are combined, is equipped with the original reading apparatus according to claim 2. See the rejection of claim 2 above for the elements of claim 2.

5. Claims 9-10, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Tranquilla in view Sueoka as applied to claims 2, 4 and 5 above, and further in view of Japanese Publication No. 59-12029 (hereinafter "JP'029").

Tranquilla in view of Sueoka discloses most of the limitations of claim 9, but does not disclose a notifier, as claimed. JP'029 discloses that it is well known in the art to provide a sheet handling apparatus with a notifier (English abstract) for the purpose of activating an alarm when multi-feed occurs. See, e.g., English abstract of JP'029. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the apparatus of Tranquilla in view of Sueoka with a notifier, for the purpose of activating an alarm upon the occurrence of a mulit-feed, as taught by JP'029. Regarding the recitation “wherein a notifier is provided that, **when the reading operation of the first original could not be performed due to multi-feeding**, makes such a notification”, the bolded portion of this recitation includes “conditional limitations” that need **not** ever occur. (emphasis added). For example, if the reading operation can still be performed despite the occurrence of multi-feed, the conditional limitations of claim 9 are never met. As such, there is no requirement for the notification from the notifier to be performed. As such, the bolded portion of the above-noted recitation does not distinguish claim 9 from the prior art apparatus of Tranquilla in view of Sueoka, and further in view of JP'029.

Regarding claim 10, the English abstract of JP'029 discloses that the notifier **always** makes a notification when a mulit-feed occurs. As such, it is the examiner's position that such notifier can make a notification of information of the original for which reading could not be performed due to multi-feeding, as claimed.

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to THOMAS A. MORRISON whose telephone number is (571)272-7221. The examiner can normally be reached on M-F, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey can be reached on (571) 272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Patrick H. Mackey/  
Supervisory Patent Examiner, Art  
Unit 3653

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